Rhea
PHONO STAGE

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INTRODUCTION

Thank you for purchasing the Rhea Phono Stage. The Rhea is a groundbreaking audio component which combines sonic quality, innovative features and build quality with lineage directly traceable to the reference Io phono stage. Rhea contains solid state circuitry but all of its amplification is achieved using vacuum tubes, with enough gain for the lowest output moving coils.

Rhea's advanced microprocessor-based control circuitry is fully inactive when not in use i.e. when not receiving a command from the user, resulting in no ill effects on sound quality. Each of its three inputs can be selected on the front panel, and each input can have its own gain and loading setting. Unique among any audio product, the Rhea contains a built in demagnetizer which allows the user to demagnetize any time with just the touch of a button.

The massive power supply consists of a high voltage transformer, heater transformer, and high voltage choke. All of the magnetics are shielded by a stainless steel transformer cover that also performs double duty as the structural truss. The high voltage power supply is regulated with a discrete transistor based regulator. The low voltage solid state power supplies are discretely regulated.

Only the highest quality components are used in the Rhea, including Roederstein resistors, RelCap film capacitors, Mercury Magnetics transformers and Nichicon audio grade electrolytic capacitors.

We hope you enjoy many years of music using the Rhea phonostage.

PLACEMENT

Rhea should be located away from possible sources of hum such as power cords, power transformers and the like.

Ventilation is critical for reliability. It should not be located on top of any heat source such as a power amplifier. If it is positioned within an enclosed space then fans may be warranted. All air vents must remain unobstructed. A minimum of 4 inches of space above Rhea is required.

CONNECTIONS

1) Connect one or more cartridges to the Rhea's inputs. Only shielded cables are recommended. Multiple turntables are supported as well as multiple arms on the same turntable.
2) Using either the single-ended (RCA) or balanced (XLR) outputs, connect the Rhea to your Aesthetix linestage, or whatever preamp you are using while awaiting delivery of your Aesthetix linestage. (Yes, this is a joke. Rhea is suitable for use with any preamplifier). Use of balanced connections will yield 6dB more gain, if the following preamplifier properly supports balanced connections.
3) Connect the turntable and/or tonearm ground wires to the banana jack on the rear panel of the Rhea. This jack is labeled "ground".
4) Connect the supplied IEC power cord to the back of the Rhea and to an unswitched, grounded AC outlet. Line conditioners may be used with the unit. Ensure the maximum power of the conditioner is not being exceeded.

OPERATION

STANDBY

AC power is applied to the unit by pressing on the left side of the power switch, when viewed from the front of the unit. When Rhea has power applied for the first time, it will first display the installed software version on the LED display for two seconds, then automatically enter the standby mode. While in standby, power is applied to all circuits except the vacuum tube heaters. The high voltage supply is reduced to a level that is safe for the vacuum tubes. All solid state circuitry in the Rhea remains powered. Anytime Rhea is in standby, the standby light will be illuminated.

Pressing the standby button will take Rhea out of standby. The standby light will blink for 30 seconds, during which time the heater supplies will be energized and the high voltage supply will rise to operational levels. After the warm-up period, the standby light will extinguish and the input will be displayed, and the mute light will be illuminated indicating the Rhea is muted.

Place Rhea in standby when not in use.

INPUT SELECTION

Press any of the three input selection buttons to select the desired input (1,2 or 3). Input selection is not possible when adjusting gain or loading.

MUTE

Pressing the mute button will alternately mute or unmute the unit. When the mute light is illuminated, the Rhea is muted. When muted, the output is shorted to ground.

GAIN ADJUSTMENT

Pressing the gain button will show the gain for the currently selected input. Press the right side of the display glass to increase the gain, and the left side of the glass to decrease the gain. The gain displayed is in dB and is the gain attained when the unit is new with factory supplied tubes. A unit with aged tubes, or non-factory tubes (shame on you!), may not achieve these gain values.

Some linestages and preamplifiers cannot accept the high output signal that the Rhea can produce. Distortion on peaks is the most obvious indication, but sometimes it can be a less obvious compression of dynamics and an upper midrange hardness. Simply lowering the gain of Rhea will eliminate this problem.

Each input has its own gain adjustment. To adjust the gain for a different input, press the gain button again to exit the gain adjust setting. Select the desired input, then re-enter the gain setting mode. The selected gains are stored in non-volatile memory and will therefore not be lost even if the power is disconnected.

The mute button is active while in the gain adjustment mode.

The below chart shows the recommended gain settings by cartridge output level. These recommendations will produce the best signal-to-noise ratio and lowest distortion. It is advised to try one setting above and below the recommended value to determine the best setting for your system.

Cartridge output level (millivolts)	Recommended Gain Setting
Less than .2	75dB
.2 - .5	62dB
.6 - 1	56dB
1.1 - 2	50dB
2.1 - 5	44dB
5.1 - 7	38dB

LOADING ADJUSTMENT

Pressing the load button will show the loading for the currently selected input. Press the right side of the display glass to decrease the loading (increased ohms), and the left side of the glass to increase it (decreased ohms). The loading displayed is in ohms, and an H on the display indicates kilo ohms.

The correct loading will be achieved when music has the right balance of dynamics, high frequency extension and lack of glare or brightness. Generally speaking, less loading (higher ohms) results in more high frequencies and more dynamics but can be too bright for some cartridges. More loading (lower ohms) can reduce brightness but if overdone can result in reduced dynamics and a dull, lifeless quality. Consult your dealer for loading recommendations on the cartridge(s) you are using.

Each input has its own loading adjustment. To adjust the loading for a different input, press the load button again to exit the loading adjustment mode. Select the desired input, the re-enter the loading mode. The selected load settings are stored in non-volatile memory and will therefore not be lost even if the power is disconnected.

The mute button is active while in the loading adjustment mode.

DEMAGNETIZER

Important note: Do not use the demagnetizer with a moving magnet (MM) cartridge. Damage to the cartridge will occur.

Pressing the demag button will activate the cartridge demagnetizer for the currently selected input. The demag light will illuminate, the output will be muted and the demagnetizing signal will be applied to the cartridge. When the demagnetizing cycle is complete, the demag light will extinguish and normal operation will return. No buttons are active while demagnetizing.

Moving coil (MC) cartridges should be demagnetized weekly or anytime a muddiness or lack of clarity becomes apparent.

To demagnetize a different input, simply select the desired input and then activate the demagnetizer.

When not in use, the demagnetizer is fully deactivated. No power is applied to its circuits and the output is disconnected from the cartridges by a relay.

DISPLAY

In normal operation, the currently selected input is displayed and its indicator light is illuminated. The mute light may or may not be illuminated. When the display button is pressed, all lights will extinguish. Pressing any button will turn on the display and indicator lights.

If the button pressed was an input select or mute button, the display and lights will extinguish again after 5 seconds. If the button was gain or loading, the display will remain on until the gain or loading modes are exited, at which time there will be a 5 second delay and then the display will extinguish. If the demagnetizer was activated, the display will remain on until the demagnetizing is complete, at which time there will be a

5 second delay and then the display will extinguish. If the standby button was pressed, the unit will enter the standby mode. The standby light is always illuminated, regardless of whether the display was on or off.

Pressing the display button while the display is off, or during the 5 second timeout period, will turn on the display and normal operation will return.

Note: The LED for the display button is intentionally inactive.

Advanced display functionality

This unit contains the ability to sense the ambient light level in the room and adjust the display and LEDs accordingly. While the factory settings will work for most situations, there may be times when adjustment to the settings is useful. There are three main sections to the advanced display functionality:

Adjustment of display brightness
Adjustment of LED brightness
Restoration of the factory default settings

Adjustment of display brightness:

To access this section, first press and hold the "display" button, then concurrently press "1" button. This can only be done from the front panel. It is recommended that once this section is entered, that all adjustments be made with the remote at some distance from the unit, so as not to obstruct light from reaching the sensor. LED #2 will light, and the display will show two numbers in the range 00-15, one on the left display and one on the right display. The left number indicates the light level that the sensor is reporting, 0 is darkest and 15 is brightest. The rightmost number indicates the display brightness setting for that light level, 0 is darkest and 15 is brightest. LED#2 will be lit, which indicates that pressing the "up" or "down" buttons will adjust the display brightness for the current light level. Pressing button #1 will turn on LED#1, which indicates that pressing the "up" or "down" buttons will change to a different light level setting, for which the display brightness could then be changed by pressing button #2. Changes to the display brightness will only be visible for the current light level.

To exit this section, press the "display" button.

Adjustment of LED brightness:

This section works identically to the above "Adjustment of display brightness" except that adjustment is made to the LED brightness instead of the display.

To access this section, first press and hold the “display” button, then concurrently press “2” button. This can only be done from the front panel. It is recommended that once this section is entered, that all adjustments be made with the remote at some distance from the unit, so as not to obstruct light from reaching the sensor. LED #2 will light, and the display will show two numbers in the range 00-15, one on the left display and one on the right display. The left number indicates the light level that the sensor is reporting, 0 is darkest and 15 is brightest. The rightmost number indicates the LED brightness setting for that light level, 0 is darkest and 15 is brightest. LED#2 will be lit, which indicates that pressing the “up” or “down” buttons will adjust the LED brightness for the current light level. Pressing button #1 will turn on LED#1, which indicates that pressing the “up” or “down” buttons will change to a different light level setting, for which the LED brightness could then be changed by pressing button #2. Changes to the LED brightness will only be visible for the current light level.

To exit this section, press the “display” button.

Special note:

Setting all brightness levels to the same value, for all light levels, will result in no change of display or LED brightness with changes in ambient light level in the room.

Restoration of the factory default settings:

To restore the factory settings for all display settings, first press and hold the “display” button, then concurrently press “3” button. This can only be done from the front panel. LEDs 1-5 will light, indicating that the unit has restored the factory settings.

Maintenance

Do not, under any condition, remove the top cover while the AC power cord is connected to the unit. As the power supply remains charged even with power removed, wait at least 20 minutes after removing the AC power cord before attempting any maintenance.

Under normal conditions, internal access is not required. In the event of a noisy tube or other maintenance, the top cover may be removed. There are no screws, it is securely held in place by an interlocking material. To remove the top cover, grasp it at the rear left edge and pull up firmly. The interlocking material will gradually disengage as the top cover is “peeled” up.

To reinstall the top cover, align the front edge with the back of the faceplate and gradually press down, starting at the front and moving toward the back.

Specifications

Fuses:

External fuse (in IEC power connector)	2 amp slow blow (117v) 1 amp slow blow (230v)

Spare fuse included in IEC power connector.

Tubes:

V1 & V2	12AX7LP, 12AX7 or E83CCS
V3 & V4	12AX7WB, 12AX7 or E83CCS
V5	6922 (6DJ8)

Power Consumption:

Standby:	20 watts
Active:	100 watts

Dimensions:

18" Width x 17 5/8" Depth x 4 3/8" Height
In Box – 22” x 22” x 10”

Shipping Weight:

39 lbs (17.5Kg)

90 DAY LIMITED WARRANTY TERMS AND CONDITIONS

(3 Year optional extended service contract)

1. Aesthetix warrants the product designated herein to be free of manufacturing defects in material and workmanship, subject to the conditions herein set forth, for a period of 90 days from the date of purchase by the original purchaser. If the purchaser registers the unit with Aesthetix by mailing in the warranty card, together with a copy of the bill of sale, within 14 days of the date of purchase, said purchaser will be registered for an extended service contract. The extended service contract extends the 90 days to a period of 3 years from the date of purchase by the original purchaser or no later than 4 years from the date of shipment to the authorized Aesthetix dealer, whichever comes first. The warranty period for factory tubes does not get extended and therefore remains at 90 days.

2. CONDITIONS

This warranty is subject to the following conditions and limitations. The warranty is void and inapplicable if the product has been used or handled other than in accordance with the instructions in the owner's manual, abused or misused, damaged by accident or neglect or in being transported, or the defect is due to the product being repaired or tampered with or modified by anyone other than Aesthetix. The product must be packed and returned to Aesthetix by the customer at his or her sole expense. A returned product must be accompanied by a written description of the defect and a photocopy of the original purchase receipt. This receipt must clearly list model and serial number, the date of purchase, the name and address of the purchaser and authorized dealer and the purchase price. Aesthetix reserves the right to modify the design of any product without obligation to purchasers of previously manufactured products and to change the prices or specifications of any product without notice or obligation to any person.

3. REMEDY

In the event the above product fails to meet the warranty, and the above conditions have been met, the purchaser's sole remedy under the limited warranty shall be to return the product to Aesthetix where the defect will be rectified without charge for parts or labor.

4. LIMITED TO ORIGINAL PURCHASER

This warranty is for the sole benefit of the original purchaser of the covered product and shall not be transferred to a subsequent purchaser of the product.

5. DURATION OF WARRANTY

This warranty expires 90 days after the date of original purchase. If Aesthetix receives the warranty registration card, this period is extended to the third anniversary of the date of purchase or no later that the fourth anniversary of the shipment to the authorized Aesthetix dealer, whichever comes first. The warranty period for factory tubes does not get extended and therefore remains at 90 days.

6. MISCELLANEOUS

ANY IMPLIED WARRANTIES RELATING TO THE ABOVE PRODUCT SHALL BE LIMITED TO THE DURATION OF THIS WARRANTY. THE WARRANTY DOES NOT EXTEND TO ANY INCIDENTAL OR CONSEQUENTIAL COSTS OR DAMAGES TO THE PURCHASER. Some states do not allow limitations on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

7. WARRANTY OUTSIDE THE USA

Aesthetix has formal distribution in many of the countries of the free world, in each country the Aesthetix importer has contractually accepted the responsibility for product warranty. Warranty should normally be obtained from the importing dealer or distributor from whom you obtain your product.